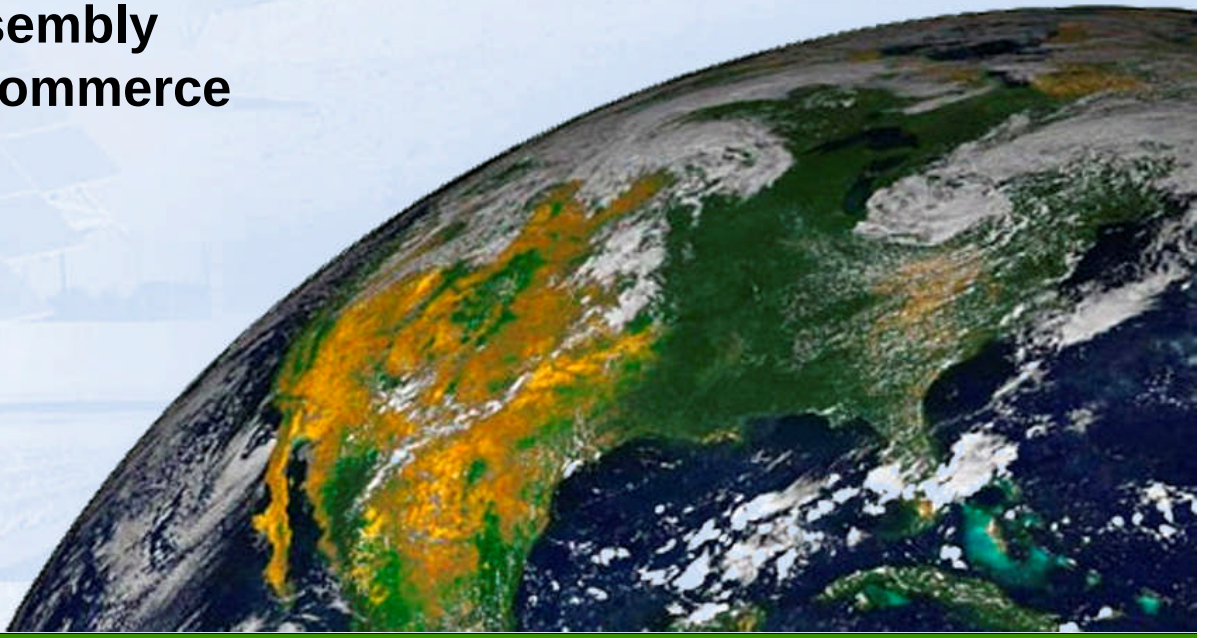
Stirling Energy Systems, Inc.

Solar Dish Stirling Systems

Briefing For California Assembly Committee on Utilities and Commerce

Creating a brighter future for humanity through SOLAR ENERGY

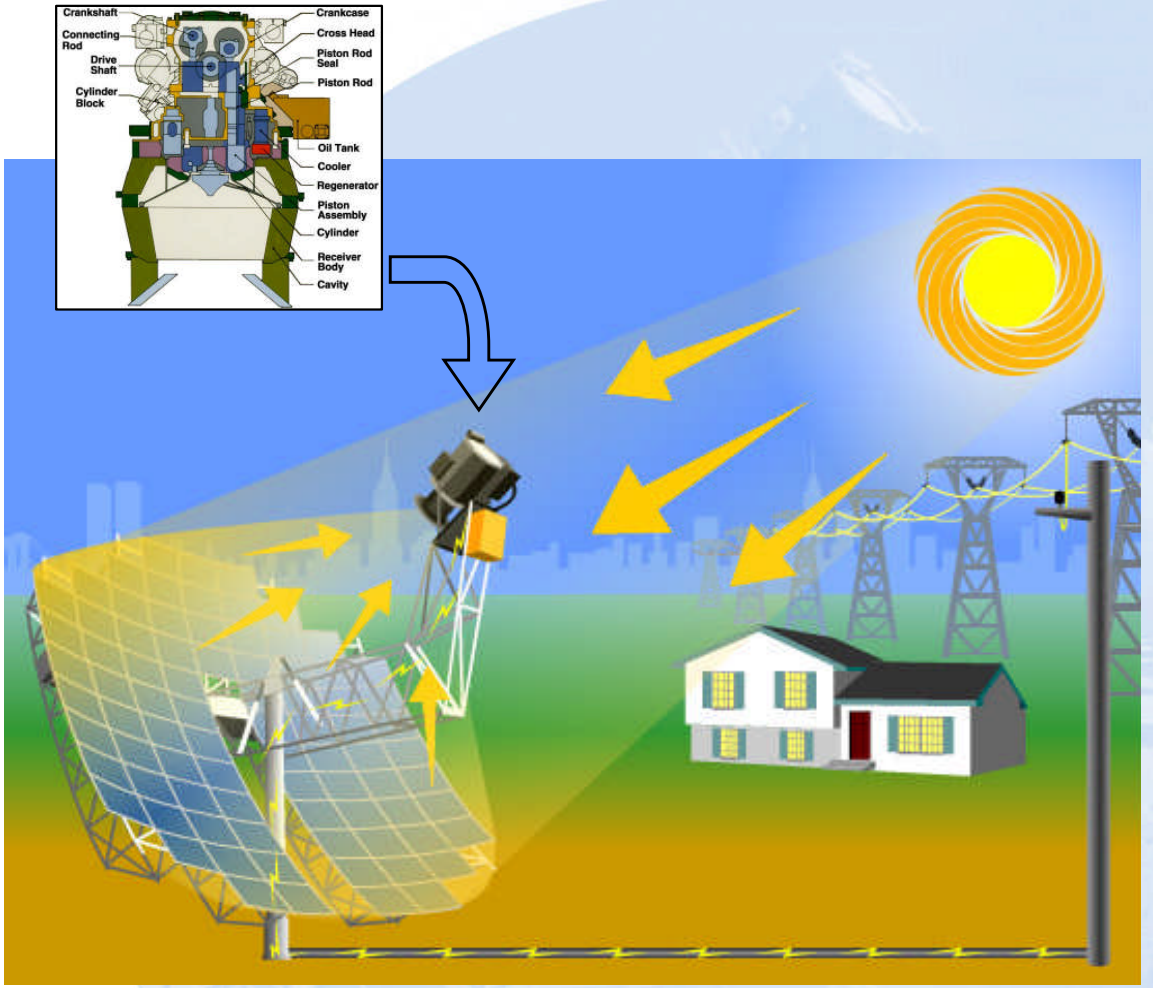


The SES SunCatcher

Stirling Energy Systems, Inc. SES

What is the SunCatcher?

Stirling Energy Systems, Inc. SES



- ✓ 25 kW solar power system
- ✓ Dish concentrator tracks, collects, and focuses the Sun's energy
- ✓ Stirling engine converts thermal energy to grid-quality electricity

SunCatcher = World's most efficient technology for converting solar energy to grid quality electricity (29.4%)

SES Solar Technology - Key Advantages

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- ✓ Cost Competitive With Conventional Peak Power Generation
- ✓ Very High Solar-to-Electric Efficiency
- ✓ Peak Power When Needed Most
- ✓ Modular Design Offers High Reliability, Scaleability
- ✓ Zero Pollution
  - ➢ No Combustion Products or Air Emissions
  - ➢ No Water Discharge
  - ➢ No Hazardous Heat Transfer Fluids
- ✓ No Natural Gas Infrastructure Needed
- ✓ Minimal Land Grading; High Contour Terrain Tolerance
- ✓ Very Low Water Use (< 1%) Compared To Other Steam Generating Plants (conventional or solar-powered)

SES Solar Technology - Part of the RPS Solution!

Proven Technology

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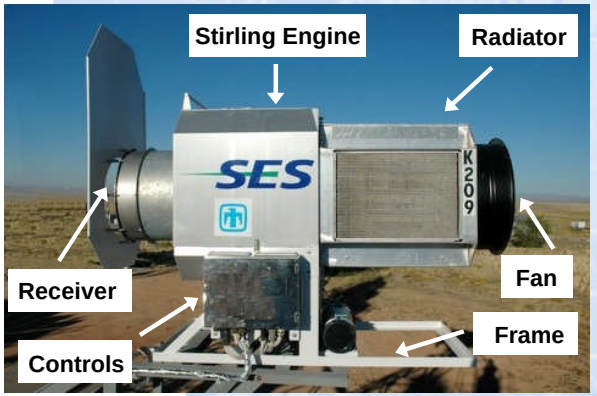
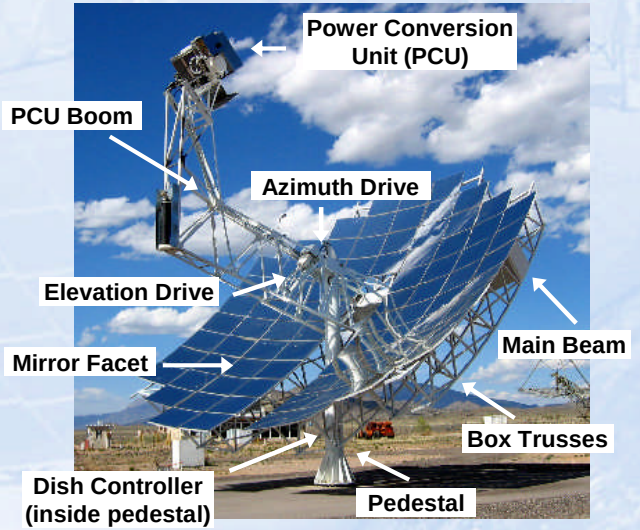
- ✓ Developed by leading solar industry pioneers: Kockums, McDonnell Douglas, Southern California Edison, the Department of Energy, and Sandia National Laboratories
- ✓ Proven track record of 20+ years of R&D and testing at a total cost of over $400 million
- ✓ World's most efficient solar generation technology: converting sunlight into grid-quality electricity

Operating History

Power Conversion Unit:
161,000 hrs On-Sun & Test Cell



Dish Concentrator:
100,000 hrs On-Sun



Complete System:
36,000 hrs On-Sun

SES Technology Is Ready for Large-Scale Deployment

SES Model Power Plant Operating at Sandia

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- ✓ Proving Ground & Showcase
- ✓ On-Going System Testing & Validation
- ✓ SES and Sandia Scientists & Engineers Teamed Together

MPP – A Slice Out of Large-Scale Solar Plant

SCE Contract Overview

Stirling Energy Systems, Inc. SES

- ✓ Capacity = 500 MW with Expansion Option to 850 MW
- ✓ 20,000 – 34,000 Solar Dish Stirling Systems
- ✓ 20-Year Power Purchase Agreement
- ✓ Sited in the Mojave Desert East of Barstow
- ✓ Construction Scheduled for 2009-12 for 1st 500 MW
- ✓ Expansion Option Scheduled for 2013-2014

SDG&E Contract Overview

Stirling Energy Systems, Inc. SES

- ✓ Capacity = 300 MW with Options to 900 MW
- ✓ 12,000 – 36,000 Solar Dish Stirling Systems
- ✓ 20-Year Power Purchase Agreement
- ✓ Sited in the Imperial Valley near El Centro
- ✓ Construction Scheduled for 2008 – 2010 for 1st 300 MW
- ✓ Expansion Options Scheduled for 2011-2014

Project Progress To Date

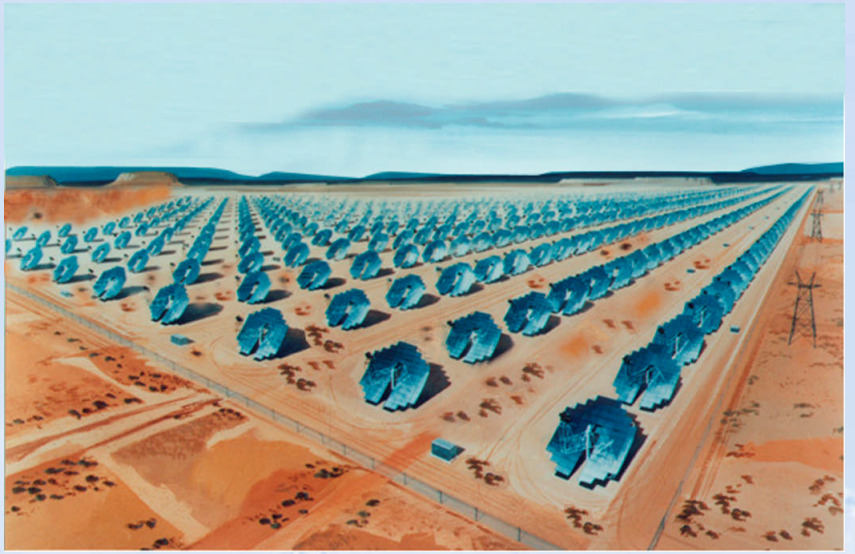
Stirling Energy Systems, Inc. SES

- ✓ Sites Identified on BLM Land – ROW Applications Filed
  - ✓ Primary and Alternative Sites Selected for Both Projects
  - ✓ Environmental Surveys:
    - ✓ Preliminary Surveys Completed in 2006
    - ✓ Full Protocol Studies In Progress Now
  - ✓ Permitting Process Well Underway
  - ✓ Regular Meetings & Site Visits Involving BLM, CEC, Other Permitting Agencies
  - ✓ Retained URS to Lead Permitting Effort
  - ✓ Retained Stantec for Electrical Design and Project Management
- ✓ Transmission Interconnect Applications Filed
  - ✓ CAISO/Utility Feasibility and Systems Impact Studies Completed
  - ✓ Facilities Studies Underway for Both Projects
- ✓ Strong Collaborative Support From SCE and SDG&E

Both Projects On Track

Solar Sites

SCE Project Site

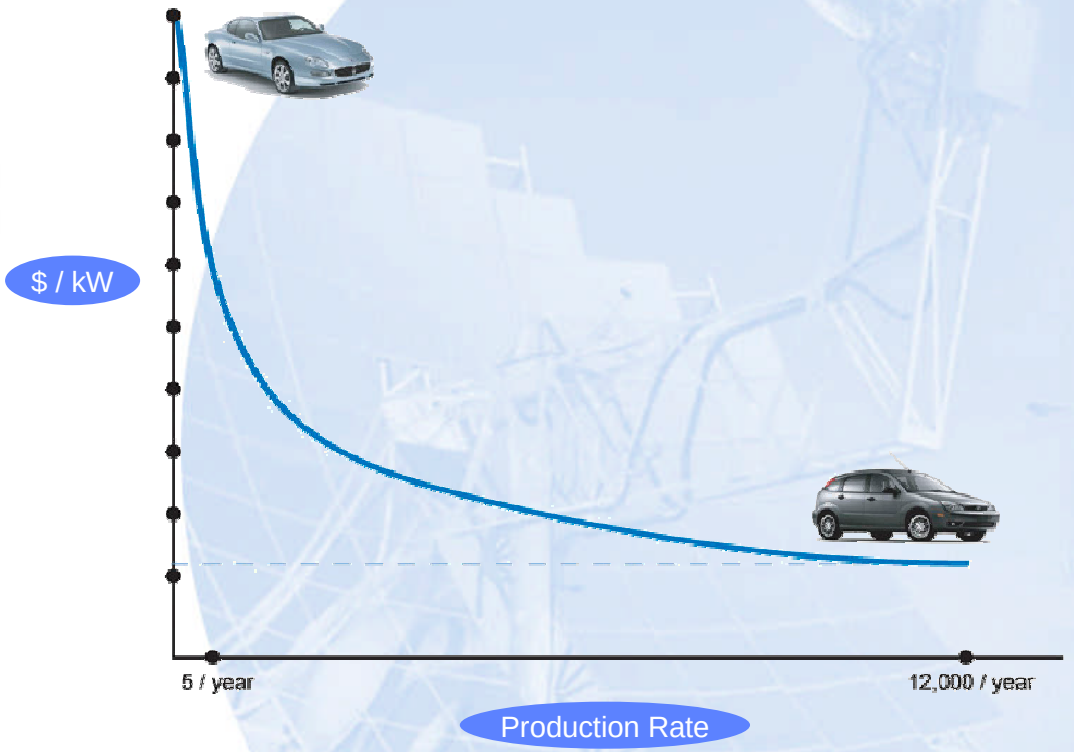


SDG&E Project Site

Product Commercialization

Stirling Energy Systems, Inc. SES

- ✓ SES is leveraging strategic partners and key suppliers to transform hand-built units into a high performance, low-cost product



Cost Reduction Drivers:

- ✓ Economies of Scale
- ✓ Automation
- ✓ Simplify product / reduce number of parts
- ✓ Off-the-Shelf Components
- ✓ Simplify assembly

Key Suppliers Include:

- ✓ Largest U.S. Steel Fabrication Company for Concentrating Dish
- ✓ Major Engine Supplier to Auto Industry for Power Conversion Unit
- ✓ Two Large Regional Contractors for Site Construction/Balance of Plant

Cost Targets Achievable Using Proven High Volume, Low Cost Manufacturing Model

Summary

- ✓ SES SunCatcher has significant advantages – high efficiency, cost competitiveness, modularity, easier siting, little water usage, clean peak power
- ✓ Technology is proven -- over 20 years of testing
- ✓ Model Power Plant at Sandia National Labs is “slice” of a large-scale plant
- ✓ Two large PPAs support high volume supply chain, help insure lowest cost
- ✓ Both projects are on a parallel course and on track
  - ✓ Sites have been identified
  - ✓ Permitting process is underway
  - ✓ Transmission interconnect process is on track
- ✓ Product commercialization efforts transform hand-built prototypes to high performance, low-cost dish systems
  - ✓ SES is teamed with experienced suppliers to make this happen
  - ✓ Suppliers are confident and incentivized to achieve cost & performance targets
- ✓ The utilities, the permitting agencies, & BLM are in close collaboration and being very supportive and helpful

Dawn of Large-Scale Solar Power!

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